10

15

20

## ABSTRACT OF THE DISCLOSURE

The image-processing device comprises a quantization threshold produce unit producing quantization threshold values corresponding to each pixel of multivalued image data according to a dither threshold matrix, a random dither quantize unit quantizing the multivalued image data in multivalues by a random dither process using the quantization threshold values so as to output quantized data, and a resolution convert binarize unit converting the quantized data into binary image data having a resolution higher than that of the multivalued image data. The resolution convert binarize unit determines the number of dot-on pixels to be output in a plural-pixel field of the binary image data according to the quantized data value of a pixel being processed of the multivalued image data. The plural-pixel field corresponds to the pixel. The resolution convert binarize unit also controls the order of arranging the dot-on pixels in the plural-pixel field according to a position on the dither threshold matrix corresponding to the pixel.